

# AFIX-TF

## TECHNICAL WORKSHOP REPORT (NIGERIA)

### I. Introduction

The African Internet Exchange Task Force (AFIX-TF) held a two-day technical training workshop in Lagos Nigeria at Excellence Hotel from Thursday 25 to Friday 26 May 2006. Trainers: Mark Elkins & Didier Kasole. Report written by Didier Kasole Workshop team leader.

### II. Planned Outcome and Benefit

Participants at the Workshop will be able to establish and maintain an Internet Exchange Point. The implicit benefit of the workshop will be to establish technical cooperation between ISPs.

### III. Workshop Structure

#### Day 1 AFIX

#### **Session 0: Opening Session** **09:30-10:00**

Introduction by Sam Adeleke Chairman of ISPA Nigeria.(localhost) in presence of Communication Ministry representatives and Nigeria Communication Commission NCC. Presentation of Afrispa by Didier Kasole (AfrISPA director).

#### **Session 1: Internet Overview** **10:00-11:00**

This session provides a brief look at the history and current status of the Internet and its architecture, and introduces (or refreshes) some key concepts.

#### **Session 3: Technical refresh(static & dynamic routing) 11:00-14:30** **(including lunch break)**

Presented by Didier Kasole, this session refreshes the concepts of static and dynamic routing. During this session, participants made many exercises on static and dynamic routing.

#### **Session 4: Technical aspects of peering** **15:30-17:00**

Presented by Mark Elkins and Didier Kasole, this session focuses more closely on how to set up peering, give more detail on BGP parameters and configuration.

## Session 6: Business aspects of peering

17:00-18:00

Presented by Mark Elkins, this session explores the business models applicable to an Internet Exchange, and the associated financial and business implications.

## Day 2 AFIX

## Session 4: Technical aspects of peering (continue)

09:30-13:00

Presented by Mark Elkins assisted by Didier Kasole. During this session we went through all security issues: router security, routing security. London IXP and Loburg IXP was studied during the session.

## Session 7: Final Exercise and Wrap

16:30-17:30

Presented by Mark Elkins, during this session participants use their real prefixes and ASN to setup a peering between them. Many participants have the router that will be used at IXP and use it for this to have a “quite ready box” for the exchange.

## IV. Participants attendees

	Name	Organization	Type	Contact
1	Sam Adeleke	ISPAN	Official	
2	Ike Nramani	Medailliom	Official	
3	Lanre Ajayi		Official	
4	Ndukwe Kalu	Amscom Telecoms	Official	
5	Chris Agha	NCC	Official	<a href="mailto:chrisagha@ncc.gov.ng">chrisagha@ncc.gov.ng</a>
6	Glory Ogbonna		Official	<a href="mailto:gloogbonna@yahoo.com">gloogbonna@yahoo.com</a>
7	Florence Akpuriri		Official	
8	Mark Elkins	Afrispa	Presenter	
9	Didier R Kasole	Afrispa	Presenter	<a href="mailto:didier@afrispa.org">didier@afrispa.org</a>
10	Olakunde Oloruntimehin	Cisco Systems	Resource Person	
11	Morakinyo Salami	Cisco Systems	Resource Person	<a href="mailto:msalami@cisco.com">msalami@cisco.com</a>
12	Austin Uwudia	Swift Talk	Participant	<a href="mailto:auwudia@swifftalk.net">auwudia@swifftalk.net</a>
13	Olawale Adebo	Neat IT	Participant	<a href="mailto:wale@neat-i-t.com">wale@neat-i-t.com</a>
14	Tayo Bamigbade	Applied Bus. Tech Ltd	Participant	
15	Kelly Osagie	Medaillon	Participant	<a href="mailto:kosagie@medallioncom.com">kosagie@medallioncom.com</a>
16	Chukwudi Ndukwe		Participant	
17	Chukwunedum Azikiwe		Participant	

18	Lekan Osofisan		Participant	
19	Bankole Falade		Participant	
20	Ifedayo Olatunji		Participant	
21	Kenneth Okereafor		Participant	
22	Morayo Bamidele	Tara Systems	Participant	<a href="mailto:mbamidele@metrong.com">mbamidele@metrong.com</a>
23	Mesele H Folorunso	Drausnet Ltd	Participant	<a href="mailto:hmessele@drausnet.com">hmessele@drausnet.com</a>
24	Olubukola Bamigbade	Applied Bus. Tech Ltd	Participant	<a href="mailto:bukkybamigbade@appliedbusinessotec.com">bukkybamigbade@appliedbusinessotec.com</a>
25	Uche Oteh	Best Comm	Participant	<a href="mailto:uche@bestcommisp.net">uche@bestcommisp.net</a>
26	Olugbenga O Oyebande	Best Comm	Participant	<a href="mailto:olugbenga@daitmail.com">olugbenga@daitmail.com</a>
27	Okechukwu Kalu	Amsco Telecoms	Participant	<a href="mailto:okeychukwu@amscomtelecoms.com">okeychukwu@amscomtelecoms.com</a>
28	Wale Falowo	Amsco Telecoms	Participant	<a href="mailto:falobytes@yahoo.com">falobytes@yahoo.com</a>
29	Olukayode Jegede	Cisco Systems	Participant	
30	Christopher Yaw	Netcom	Participant	<a href="mailto:c.yaw@netcomng.com">c.yaw@netcomng.com</a>
31	Seun Sonaike	Tara Systems	Participant	<a href="mailto:ssonaike@metrong.com">ssonaike@metrong.com</a>
32	Adenle Adeoti	Linkserve	Participant	<a href="mailto:aadeoti@linkserve.net">aadeoti@linkserve.net</a>
33	Kunle Faseyi	Linkserve	Participant	<a href="mailto:kfaseyi@linkserve.net">kfaseyi@linkserve.net</a>
34	Ogbodo Emmanuel	SITL	Participant	<a href="mailto:eogbodo@sitlcom.net">eogbodo@sitlcom.net</a>
35	Keith Massey	Netcom	Participant	
36	Tope Fashedemi	Netcom	Participant	
37	Bunmi Kuku	Netcom	Participant	<a href="mailto:b.kuku@netcomng.com">b.kuku@netcomng.com</a>
38	Ime Ben Etuk	Siotel Nig Ltd	Participant	<a href="mailto:imeben@siotel.net">imeben@siotel.net</a>
39	Lorenzo Toyin Anthonio	Neat IT	Participant	<a href="mailto:lorenzo@neat-i-t.com">lorenzo@neat-i-t.com</a>
40	Emeka Nnamani	Medallion	Participant	<a href="mailto:emekan@demadiur.com">emekan@demadiur.com</a>
41	Afolabi Rasak	NITEL	Participant	<a href="mailto:raafolabi@nitelnet.com">raafolabi@nitelnet.com</a>

## V. Workshop Evaluation

In general, the assessments were favorable, 100 % of participants were very satisfied by the workshop. 65% of participants match their expectation and 21.5 % Exceed their expectation.

	14 participants completed the evaluation forms	
On the Question: How useful did you find the workshop?	Very useful	14
	Somewhat useful	
	Not useful	
On the Question: How did it match your expectations? (Were the aims communicated in advance?)	Exceeded	3
	As expected	9
	Below	2

## ***Individual session evaluations and trainers evaluations***

### **Session 1: Introduction and Internet Overview**

Trainer's name: Didier Kasole

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor	
Presentation skills	3.86	
Presentation content	4.36	
Handouts	4.25	
Overall	4.03	
Too Long : 0%	Too Short : 7%	About Right: 93%

Comment: Public Address came late. Could bearly heer at to beginning

### **Session 3: Technical Refresh: static & dynamic routing**

Trainer's name: Didier Kasole

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor	
Presentation skills	3.79	
Presentation content	4.14	
Handouts	4.25	
Overall	4.15	
Too Long : 0%	Too Short : 7%	About Right: 93%

Comment: This is necessary session, good reminder of routing

## Session 4: Technical aspects of Peering

Trainer's name: \_\_\_ Mark Elkins & Didier Kasole \_\_\_

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor	
Presentation skills	4.61	
Presentation content	4.50	
Handouts	4.50	
Overall	4.59	
Too Long : 0%	Too Short : 7%	About Right: 93%

Comment: End of course not clear

## Session 6: Business aspects of Peering

Trainer's name: \_\_\_ Mark Elkins \_\_\_

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor	
Presentation skills	4.64	
Presentation content	4.43	
Handouts	4.25	
Overall	4.52	
Too Long : 0%	Too Short : 21%	About Right: 79%

Comment: interesting exercises, well done

## Session 7: Exercises: Security, IXP setup, etc...

Trainer's name: \_\_\_ Mark Elkins \_\_\_

Please rate the following on a scale of 1 to 5:

	5 = Excellent, 4 = Good, 3 = Average, 2 = Poor, 1 = Very poor	
Presentation skills	4.77	
Presentation content	4.77	
Handouts	4.58	
Overall	4.73	
Too Long : 0%	Too Short : 15%	About Right: 85%

Comments :

## Overall Workshop Evaluation

How did you find the length of the workshop?	Too short	7%
	About right	<b>93%</b>
	Too long	0%
How did you find the pace of the workshop?	Too slow	7%
	About right	<b>93%</b>
	Too fast	33%
How satisfied were you with the organisation of the workshop?	Not satisfied	7%
	Somewhat satisfied	7%
	Very satisfied	86%
Any other comments? <ul style="list-style-type: none"><li>• How de we have our own link connected to the IXP withput the upstream provider, since we can get IP address from Afrinic</li><li>• Subsequent workshops like this would be nice and encouraged</li><li>• Very good. Explians both technical &amp; commercials of the IXP</li><li>• This is the way forward for Nigerian and I wish we ill have one of this at regular intervals</li><li>• Exceeded my expectations</li><li>• I don't think these is enough documentation of the workshop materials</li></ul>		

## VI. Conclusion & follow up

As for the 2 last wokshops almost 100% of participants are very satisfy. **The length was not a problem for this workshop , 93% find the length and pace right.** During previous workshops 50% of participants find workshop too short. (Reason: no internet connection in the meeting room, so participants spend all the time to fallow workshop not browsing the web). Suggestion: disconnect internet in the meeting room during the workshop.

**Well done Mark Elkins**, for his first presentation he was **ranked 4.77 on 1 to 5 scales.** (average ranking for presenters is 3.50 to 4.50)

As many ISPs have their border routers configured at 50%, the Nigeria Internet Exchange Point will be lauch in two weeks. It will be a special design, tree locations connected by fiber to facilitate acces to ISP in this large city Lagos. Tree more cities will be connected to the IXP in new future (by the end of this year).

Thank you to Nigeria Communication Committee and ISPA Nigeria to cover the Venue cost.